5.4 Public Services and Utilities

Construction of the Renton Nickel Improvement Project will have minor short-term effects on public services and utilities in the study area. Relocation of utility lines may cause temporary, minor disruptions in service. The project will improve response time for emergency service vehicles along I-405 and SR 167.

Public services and utilities are important to consider because they enhance and simplify the quality of human life. They allow us to live in a safer environment and enjoy a higher standard of living.

Transportation projects may affect public services and utilities by disrupting service during construction. Construction effects may include relocating, adjusting, or protecting utility lines or facilities. These activities may interfere with police, fire, and emergency services. Public services include fire, police, schools, parks and recreational facilities, transit, and maintenance services. Utilities include municipal agencies, special utility districts, and private companies that provide services such as electricity, natural gas, water, wastewater or stormwater collection, and telecommunications.

This section summarizes the I-405 Project Team's analysis of the project's potential effects on public services and utilities.

Valley Medical Center, off of SW 43rd Street, is the largest non-profit health organization between Seattle and Tacoma. This facility is also one of only three Level III Trauma facilities in King County.

Please refer to the Renton Nickel Improvement Project Public Services and Utilities Discipline Report in Appendix R for a complete discussion of the public services and utilities analysis.

What are the public services and utilities in the study area?

Several entities provide public services to the communities within the study area, including police protection, fire and emergency medical services, schools, religious institutions, community centers, cemeteries, and government offices. The location of these service centers are shown in Exhibit 5-14. Utilities (electricity and natural gas, telephone service, cable service, water, sewer, solid waste collection and recycling) are provided to the community by both public and private providers.

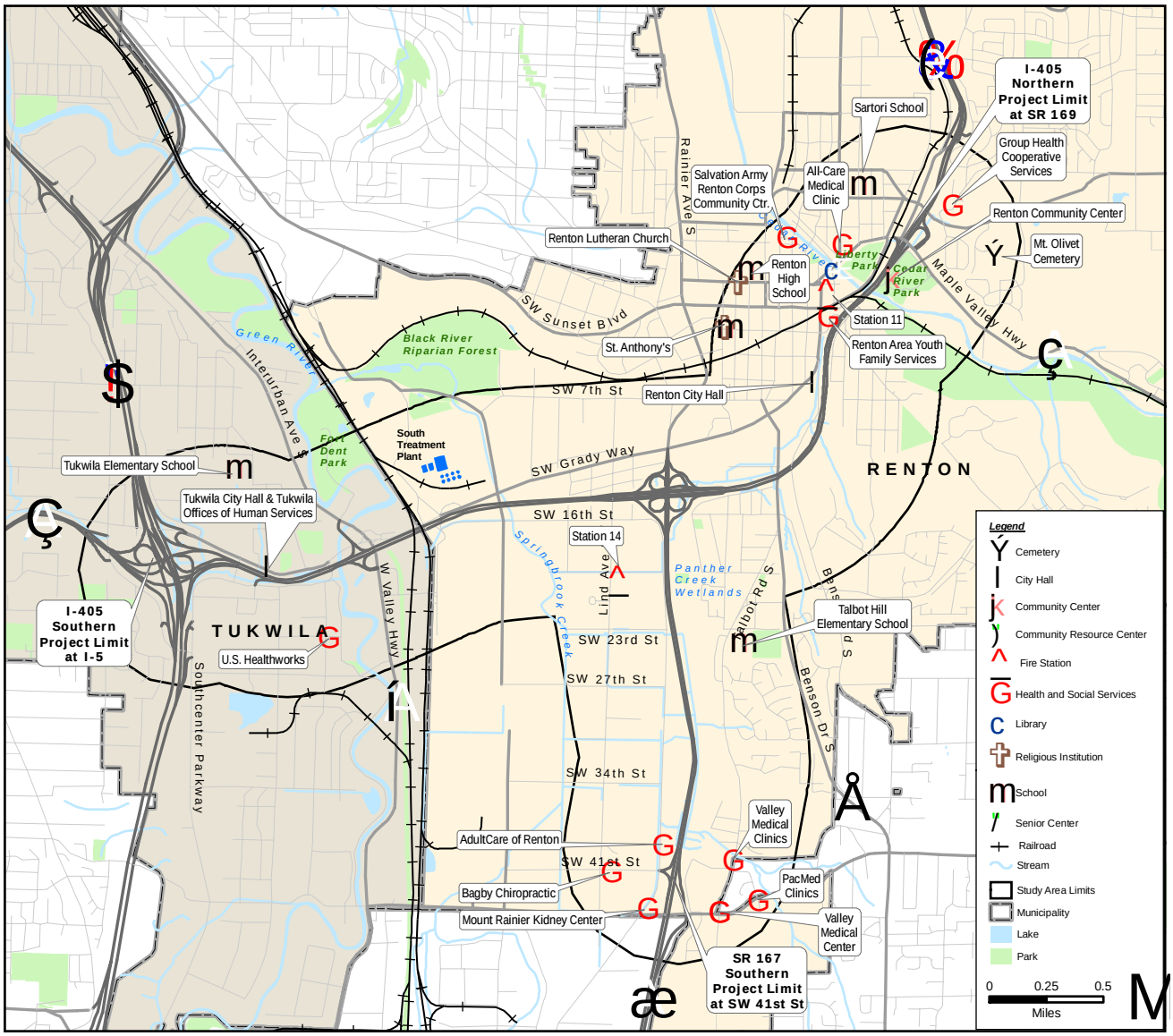

Exhibit 5-14. Existing Public Services in the Renton and Tukwila Area

How will project construction affect public services and utilities?

Construction activities will have minor short-term effects on public services and utilities in the study area. Services that depend on public roads such as school buses, solid waste collection, and emergency services may experience some minor, temporary delays during some construction phases. Traffic delays may be caused by:

- Detours
- Construction activities

- Increased truck traffic importing or removing fill material to and from a project site

To minimize effects on traffic, the duration of activities will be minimized and reductions in capacity will be targeted to a period when they will have the least effect. WSDOT will also comply with safety standards and work to minimize effects on road capacity during construction. For example, construction of the new Benson Road Bridge over I-405 will be staged so that traffic flow can be maintained. The new structure will be built to the west, so that the existing bridge can remain in service. This will minimize effects on public services, in particular emergency response times.

Utilities

Many utilities cross over and under I-405 and SR 167 and several of these will be affected by the project. Investigations are underway in consultation with the utility owners and agencies to determine the extent and nature of the possible effects and to develop strategies for relocating and/or protecting the existing utilities, if required.

How are underground utilities protected in place?

Underground utilities are protected by concrete encasements, sleeves, or slabs. This type of protection ensures that roadways or other structures placed on top of them will not collapse the pipe. It also protects the roadway or structure against collapse and wash out should a pipe break or start to leak.

The I-405 Project Team expects to find that most utilities already have adequate protection. A few utilities may require their protective casings to be extended in place and some may need to be relocated. Relocating utility lines and/or cables may cause temporary outages. These outages are anticipated to be short term and intermittent. Outages will be coordinated with service providers to ensure that inconveniences to the public are minimized. The potential utility conflicts that have been identified are summarized below. These probable utility conflicts will be resolved prior to construction.

Electric power

The I-405 Project Team has identified potential conflicts with overhead power transmission lines. These lines cross over Benson Road and their height may need to be increased to provide adequate clearance for the new Benson Road Bridge. WSDOT may also have to relocate the tower associated with the step-down transformer south of I-405 and east of Longacres Drive.

Transmission lines crossing Benson Road

Natural gas

The I-405 Project Team identified a number of natural gas lines, all owned by Puget Sound Energy, that have probable conflicts; WSDOT does not anticipate relocating these lines. Where needed, the existing protective

casings will be extended to accommodate roadway widening.

Telephone/cable

The I-405 Project Team identified several buried phone lines near the BNSF railroad tracks. These lines may require some minor shifts, but the I-405 Project Team anticipates that these shifts could occur without major disruption of service as long as the lines have enough slack for adjustment.

Water supply

Widening northbound I-405 will encroach on the existing the 60-inch City of Seattle water line that provides water for Tukwila within the study area and will reduce the clearance to the line. The water line will be protected by installing a protective lining around the pipe. A fill slope will then be used along the highway edge that will allow future access to the pipe for repairs and maintenance.

The I-405 Project Team has identified one City of Renton water line near Benson Road that is expected to be relocated. This relocation will be staged so that no major service disruption occurs. In addition, the City's fire protection system in Benson Road will remain in place until the new system is energized.

A 60-inch City of Seattle water main crosses SR 167 at approximately SW 23rd Street. The I-405 Project Team is currently field verifying this line location and evaluating its existing protection.

Sewer system

The I-405 Project Team has identified several potential sanitary sewer line conflicts in the study area; however, these lines are not anticipated to need relocation. One line, a 90-inch sewer line near Springbrook Creek, will require special design considerations. The I-405 Project Team is currently evaluating the bridge design around this line.

How are utilities being coordinated?

The I-405 Project Team is currently working with the utility providers to verify all existing utilities in the study area and to provide a strategy to assure that the relocations are done efficiently and in a timely manner. Utilities will be relocated under the provisions provided in each provider's franchise agreement. The I-405 Project Team will determine the best timing for relocations through communications with the utility provider and with WSDOT.

The I-405 Project Team has identified three possible approaches:

- Relocate utilities prior to awarding the construction contract.
- Begin the relocation process before selecting the contractor and then assign responsibility to the contractor to identify any remaining utilities.
- Give the successful contractor the full responsibility to coordinate all utility relocations.

The I-405 Project Team has future meetings scheduled with the various providers to confirm existing utility locations, as well as to refine the team's approach for relocating utilities.

How will the completed project affect public services and utilities?

WSDOT expects an increase in average travel speeds of up to 20 mph along I-405 when the project is completed. The project will also increase the number of vehicles that can travel through the corridor. This will enhance mobility and reduce response times for fire and emergency medical service vehicles along I-405 and SR 167.

However, we do not expect the increases in speed and capacity to be substantial enough to affect traffic patterns or conditions on local streets. Emergency services will experience essentially the same conditions on local streets with or without the project.

What measures are proposed to minimize effects on public services and utilities during construction?

Effects to existing utilities will be avoided through project design where it is feasible. Where avoidance is not feasible, utilities will be relocated or protected in place.

In addition, WSDOT expects to meet the commitments in the I-405 Corridor Program Final EIS. Construction scheduling and staging plans will be developed to ensure that emergency and school transportation access is maintained. If temporary disruptions in service are unavoidable, emergency and school transportation service providers will be contacted and kept informed. We will develop contingency plans for unforeseen interruptions of access or services before construction begins.

How are utilities relocated so that service is not disrupted?

When utilities are relocated, the move is staged so that no major disruption in service occurs. Usually, the existing line is kept in place and in service while the new line is being laid. Once the new line is in place, it is tested, treated, and connected to the existing service. The shift from the existing line to the new line usually occurs during off-peak hours (when there are the fewest users).

What measures are proposed to minimize effects on public services and utilities during operation?

Public services and utilities will not be negatively affected by the project following construction. Therefore, no measures are proposed.

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